

CASTLEMAINE NATURALIST



APRIL 1991 #166

ANTS and SEED DISPERSAL

Ants help disperse seeds in two ways.

Firstly, some ants use seeds as a food source, and transport them to their nest. Some of the seeds may be dropped along the way, or stored and then ignored. From the plant's point of view, this is an inefficient method of seed dispersal.

Some plants produce a fat body, called an "elaiosome", which is near or attached to the seed. The elaiosome is attractive to ants, and the ants carry both the seed and elaiosome back to the nest. The elaiosome is eaten by the ants, and the seed discarded.

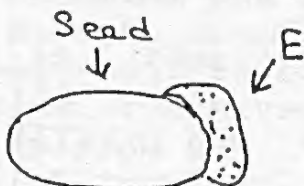
Elaiosomes are found in thousands of species in over 60 families, all over the world. Plants such as acacias, violets, rushes and sedges may have them. They are particularly common in Australia where about 1500 species of plants have elaiosomes.

Experiments have shown that it is not just dispersal that is of advantage to plants. Seeds germinating in an ant colony have a much better chance of surviving. It is less likely to be eaten, and it grows faster, and sets seed more abundantly.

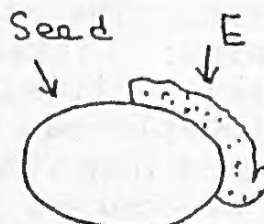
Not all ants collect these seeds. Some kinds merely eat the seeds, so it is the plant's interests to have the elaiosome as attractive as possible, so that it will be found by a suitable ant and carried off.



Cootamundra Wattle Wirilda



Wirilda



Hovea

How many of the Castlemaine district plants have elaiosomes? It would make an interesting project to examine the seeds of the local plants.

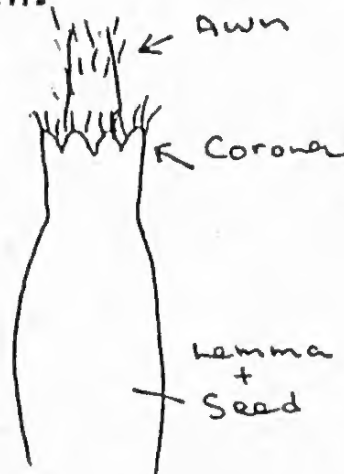
Reference: Seed Dispersal by Ants, by Stevan Handel and Andrew Beattie, Scientific American Aug 1990.

ADDITIONS TO THE PLANT LIST

Additions to the Castlemaine Plant List since December 4th, 1990 include

Sea barley (*Critesion marinum*). Is similar to the barley grass often seen growing about Castlemaine, but has smaller flower heads. It is generally an indicator of salting. Several patches were found during roadside surveys of Maldon Shire. Also found in a soak at the edge of the Midland Highway towards Mt Franklin.

South American spear-grass (**Stipa neesiana* and **S. leucotricha*). Both are tall spear-grasses, and originate from South America. They differ from the local spear-grasses by having a corona above the seed and at the base of the awn. *Stipa neesiana* was found at the edge of Campbells Creek (near Moscript Street). *Stipa leucotricha* was found at Taradale, about a kilometre south of the township. Although one of the specimens was found at the edge of a creek, it seems that the usual habitat is on basalt.



Common Thorn-Apple (**Datura stramonium*) is a member of the tomato family. It is a shrub with large trumpet shaped flowers and the fruit, rather than being smooth skinned like a tomato, are covered with stout thorns. To be even more unpleasant, it is poisonous, and has been declared to be a noxious weed. It was found on the far side of Cairn Curran. There are several species of thorn-apple. Another species, the downy thorn-apple (*D. wrightii*), has been found in the same area.

Blakeley Road Birds

The Grey Box trees are in full flower around the house at the moment, and just after lunch on 29/3 I sat out on the back verandah with my inoculars for about 20 minutes to record this bird list which includes 6 different honeyeaters. The noise and movement was amazing.

Magpies; Little Raven; Australian Raven; Golden Whistler (pair); White-throated Tree-creeper; Yellow-faced Honeyeater; Yellow-plumed Honeyeater; White-naped Honeyeater; Black-chinned Honeyeater; Red Wattlebird; Brown-headed Honeyeater; and of course, our resident Galahs.

We've regularly had Crimson and Eastern Rosellas around, but they didn't turn up during this 20 minutes. There were also some thornbills in the plum tree, but I couldn't see them well enough to identify them. Every now and then there seems to be a huge number of birds arrive for just a short time, and then things settle back to normal again.

Rita Mills

FRIENDS OF BROLGAS

A "Friends of the Brolga" group is being formed. The initial meeting will be at "Mooramong", the National Trust Property at Skipton, on Sunday 14 April at 10 am.

- 9.30 Tea/coffee, registrations
- 10.00 Welcome. Mike Ransom (C&E, Ballarat)
- 10.05 Graham Pizzey - Wetlands & birds in Western Victoria (with slides)
- 10.40 Philip DuGuesclin
 - International crane conference and brolga resolution
 - banding and tagging.
- 10.55 Don White - situation since publication of the brolga report in 1984.
- 11.15 Break
- 11.25 James Ross, VNPA, Friends of Fauna and Flora project officer.
- 11.30 Open discussion
 - forming of a group
 - election of committee
- 12.15 Close

In the afternoon the national Trust homestead and the Scobie and Claire McKinnon Nature Reserve will be open to the public for a small fee.

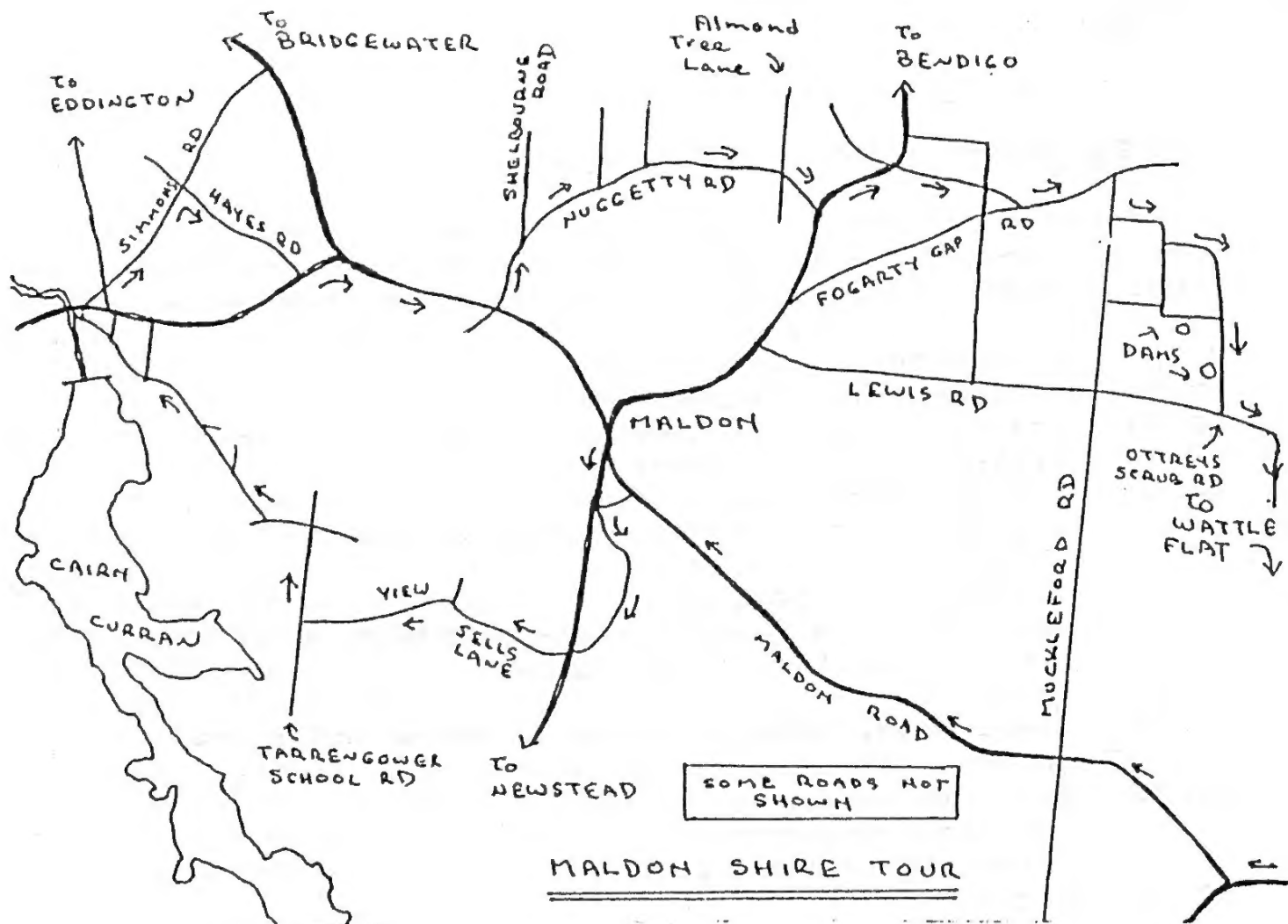
Please RSVP by April 5th to Murray McIntyre, Land for Wildlife Extension Officer, Ballarat Region (053 336 825) or contact your regional office.

GOULD LEAGUE PROGRAM

All sessions at 7.30 pm at 67 High St, Prahran, followed by a field trip [date of field trip in brackets].

- Melbourne's Geology and Fossils. April 10 [May 25].
- Reptiles. May 15 [May 25?]
- Eucalypts. June 12 [Aug 17]
- Wattles. Jul 10 [Aug 17?]
- Frogs. Aug 14 [Oct 12]
- Butterflies and Moths. Sept 11. [Oct 12?]
- Wildflowers. Oct 16. [Nov 23]
- Native Grasses Nov 13 [Nov 23?]

Further details/application forms from Gould League of Victoria, PO Box 446, Prahran Vic 3181. Tel 03 510 1493.



Scraps of Information

While cleaning out the dogs' yard recently I came across a European wasp stinging a blowfly to death. There was a "bowl" in the dust 2cm wide by 1cm deep where the dastardly deed was going on. The wasp was stinging the blowfly repeatedly, hanging onto it with its legs. A day or two later I noticed them hanging around the scraps I'd put out for the bantams and the magpies, again hunting away, and trying to catch, any blowflies which dared to try and land on the scrap of meat. So, instead of having an exclusive taste for sweet things as I had thought, these ruffians also have a liking for meat and dog turds!

Another pest which is proving to be quite handy is in my compost bin, which is a makeshift one. It is a family of mice which is turning the compost over nicely. In fact, it looks like being my most successful compost ever. Perhaps I should cut a hole for a mouse in my two proper compost bins?

Rita Mills

TOUR OF SOME MALDON ROADS

A total of 50 bird species was recorded on the Club's tour of the Maldon roads, despite the weather being overcast and windy.

One of the highlights occurred during lunch on the banks of the Loddon River, when a pair of white-necked herons was observed trying to balance on a slender tree top.

Grebe, Hoary Headed	Shrike-thrush, Grey
Grebe, Australian	Flycatcher, Restless
Darter	Fantail, Grey
Cormorant, Little Black	Wagtail, Willy
Cormorant, Little Pied	Babbler, White-browed
Heron, White-faced	Wren, Superb Blue
Heron, Pacific	Weebill
Ibis, Sacred	Thornbill, Buff-tailed
Swan	Thornbill, Yellow-tailed
Teal, Grey	White-face
Duck, Maned	Wattlebird, Red
Eagle, Little	Miner, Noisy
Moorhen, Dusky	Honeyeater, Yellow-tufted
Swamphen	Honeyeater, Fuscous
Coot	Honeyeater, White plumed
Lapwing, Masked	Honeyeater, Brown Headed
Plover, Black-fronted	Pardalote, Spotted
Pigeon, Crested	Goldfinch
Galah	Sparrow
Corella, Long-billed	Starling
Rosella, Eastern	Chough, White-winged
Parrot, Red-rumped	Mudlark
Kookaburra	Magpie
Swallow, Welcome	Currawong, Grey
Winter, Jacky	Raven, Australian

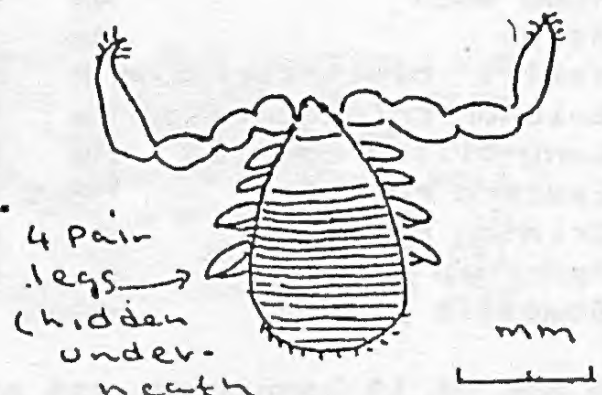
FALSE SCORPIONS

A specimen of a "spider" given for identification is thought to be a false scorpion.

False scorpions, like scorpions and spiders, are arachnids. They differ from scorpions in the absence of the large "tail", and in their small size which is less than 5 mm. An obvious feature is the large pair of claws at the front of the body.

False scorpions use their claws as sense organs (like the antennae of insects). If they are alarmed, they draw in their claws and move rapidly backwards.

They are carnivorous, and use poison to kill insects. The prey is eaten in its entirety.



Cocoons for eggs are made by binding pieces of sand with silk. The young are fed by "uterine milk" made by the mother.

I do not know how common false scorpions are in this district. In Europe they are widespread,, and live under fallen leaves, under bark, among sand and stones, and in old bird's nests. Some live with ants. Perhaps some reader might care to search for them in such places.

The specimen observed was found inside a house at Chewton - probably brought inside with firewood.

BIRD WATCHING BY TRAIN

On March 6th and March 13th, we went to Melbourne, catching the 7.10 am train and returning by the 3.50 afternoon train. Bird watching by train has some (dis) advantages, in that the birds are often gone so quickly that the identity cannot be checked. It is fairly difficult to distinguish, say a brown thornbill from a striated thornbill when travelling at 100 km per hour. Trains no longer have emergency cords, which makes it difficult to stop the train to get a closer look.

The morning trips were more productive in the number of species recorded. Black-shouldered kites were often seen, and nankeen kestrels were also seen a number of times. Highlight however, was the sighting of about a dozen yellow-tailed black-cockatoos near Carlsruhe.

[M = morning, A = afternoon of Mar 6; m = morning, a = afternoon of March 13th.]

Little pied cormorant	Aa	Indian turtle-dove	Mma
Pacific heron	Mm	Silver gull	MAma
White-faced heron	Ama	Masked lapwing	m
Black-shouldered kite	MAma	Kookaburra	M
Brown falcon	a	Willy wagtail	MAa
Black-f'd cuckoo-shr.	Mm	Yellow-tailed thornb'l	A
Nankeen kestrel	MAa	Red Wattlebird	M
Black duck	m	Sparrow	MAma
Wood duck	Aa	Starling	MAma
Galah	Mm	Indian mynah	MAma
Yell-t' black-cockatoo	M	Magpie Lark	MAma
Sulphur-cr'd cockatoo	Mm	Magpie	MAma
Long-billed corella	Mm	Pied currawong	a
Eastern rosella	MAma	Grey currawong	a
Crimson rosella	m	Australian raven	Ma ?
Red-rump parrot	M	Little raven	MAma
Domestic pigeon	MAma		

A mob of 14 kangaroos was seen at Wesley Hill (over the railway line from the stadium) on the second morning.

NOTES FOR MARCH

BIRD OBSERVATIONS

Bronzewing pigeons were reported to be more common than before, particularly near Kalimna. (PS) (some are usually to be seen near the Hunter Street entrance to Kalimna).

Grey fan-tail and scarlet robin were observed in Hunter Street (RH)

Tawny-crowned honeyeater was reported from the area near the Loddon Gaol (GB)

Yellow spoonbill was observed on a dam at Castlemaine North on March 18th (RM)

Brown-headed honeyeaters - a flock of 6-8 were in a Blakeleys Road garden on 15th March (RM)

Indian mynah was seen at Harcourt North, near the reservoir (RM). This is one of a number of sightings of the mynah in this vicinity over the past few months.

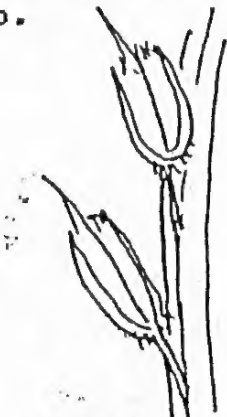
Little falcon has been sitting on a television antenna in Wheeler Street (GB)

FUR PELLET was shown at the March meeting by I. Pellas. It was thought to have been re-gurgitated by a powerful owl. The pellet contained bones and fur.

WALLABY was watched for some time at the dam near the Red, White and Blue mine in Muckleford forest. It was sitting in about 30 cm of water. It was seen again about a week later in a similar position.

CLEISTOGAMES IN SPEAR GRASS

One of the potential weeds of the district is the South American spear grass known as *Stipa caudata*. Its only known location in the district is near the junction of Forest Creek and Barkers Creek. It forms a dense leafy clump.



One of the reasons for fearing its spread is its ability to grow flowers from near the base of the stem. These flowers are self fertilising, and are produced in addition to the more typical flowers produced at the ends of the stalks.

The ability to produce flowers in this way is called cleistogamy.

CASTLEMAINE F.N.C. PROGRAM

Fri 12 Apr. THE AMAZON with Felix Cappy. 8 p.m. at the High School.

Sat 13 Apr. Mt CAMERON CROSSING. Not on the Amazon, but a 3-4 km walk along Tullaroop Creek. Leader R Mills. Meet 1.30 p.m. sharp at S.E.C., Mostyn St.

Fri 10 May. NATURAL HISTORY OF THE GOLDFIELDS. Speaker is Garry Cheers. 8 p.m. at the High School.

Sat 11 May. Mt ALEXANDER WALKING TRACKS. Explore some of the Mt Alexander with Rita Mills. 1.30 p.m. at SEC

Fri 14 June. FROGS with Tom Burton. 8 pm at High School

Sat 15 June. DAM CRAWL. A tour of some of the watering places of Smiths Reef and Muckleford. Leader is George Broadway. 1.30 p.m. sharp outside S.E.C., Mostyn St.

Fri 12 July. THE HIMALAYAS with Berri Perry.

Sun 6 Oct. MUCKLEFORD FOREST with Ballarat F.N.C.

Sat 12 Oct. LAURISTON WILDFLOWERS. 1.30 p.m.

Sun 20 Oct. MALDON STEAM TRAIN WILDFLOWER TRIP. Date of Bendigo Native Plant Group tour. 1 p.m. at Maldon RS.

Sat 9 Nov. TIPPERARY SPRINGS. Walk from the springs to Twin Bridges. Leader R. Mills. 1.30 pm at SEC, Mostyn Street. Leader R. Mills.

Meetings on the second Friday of each month (Jan excepted) at Castlemaine High School at 8.00 p.m. Business meetings on the fourth Thursday at 38 Campbell St at 7.30 p.m. All members are invited to attend.

Visitors are invited to attend the Club's sessions.

Castlemaine Field Naturalists Club Inc
P.O. Box 324, Castlemaine 3450

Committee: Ern Perkins (Pres), Chris Norwood (V. Pres), Maggie Oliver (V. Pres), Barbara Maund (Sec), Clodagh Norwood (Treas), Kaye Turner, George Broadway, Rita Mills (Newsletter), Enid Hall and Brenda Envall.

SUBSCRIPTIONS

Student/Pensioner	\$7	Single	\$10
Supporting	\$20	Family	\$15
Newsletter posted: Subscription plus \$6			

SUPPER Apr 12: M & B Holden May 10: I & E Pellas